```
=> FIL HOME
=> s (polymer?(5l)hydrophil?)
L1      149289 (POLYMER?(5L) HYDROPHIL?)

=> s protein and (L1 or hydrogel? or water) and (biocompati? or collegen or albumin
or fibrin or fibrinogen)
L2       71109 PROTEIN AND (L1 OR HYDROGEL? OR WATER) AND (BIOCOMPATI? OR COLLE
               GEN OR ALBUMIN OR FIBRIN OR FIBRINOGEN)

=> s l2 and (visualiz? agent or photopolymer?)
L3         710 L2 AND (VISUALIZ? AGENT OR PHOTOPOLYMER?)

=> s l3 and (biodegrad? hydrogel?)
L4          55 L3 AND (BIODEGRAD? HYDROGEL?)

=> s l4 and (crosslink? or cross-link? or cross link?(w)polyethyelen glycol or PEG)
L5          55 L4 AND (CROSSLINK? OR CROSS-LINK? OR CROSS LINK?(W) POLYETHYELE
               N GLYCOL OR PEG)

=> s l5 and (electrophil? or nucleophil?)
L6          25 L5 AND (ELECTROPHIL? OR NUCLEOPHIL?)

=> s l5 and (dye or blue color or green color or methylene blue or indocyanine
green)
L7          36 L5 AND (DYE OR BLUE COLOR OR GREEN COLOR OR METHYLENE BLUE OR
               INDOCYANINE GREEN)

=> s l7 and (kit or packaged device)
L8           8 L7 AND (KIT OR PACKAGED DEVICE)

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9             8 DUP REM L8 (0 DUPLICATES REMOVED)

=> d l9 1-8 bib ab

L9   ANSWER 1 OF 8  USPATFULL on STN
AN     2003:299937  USPATFULL
TI     Microgel particles for the delivery of bioactive materials
IN     Frechet, Jean M.J., Oakland, CA, UNITED STATES
       Murthy, Niren, Berkeley, CA, UNITED STATES
PI     US 2003211158      A1   20031113
AI     US 2003-401496     A1   20030328 (10)
PRAI   US 2002-368576P     20020329 (60)
DT     Utility
FS     APPLICATION
LREP   LAWRENCE BERKELEY NATIONAL LABORATORY, ONE CYCLOTRON ROAD, MAIL STOP
       90B, UNIVERSITY OF CALIFORNIA, BERKELEY, CA, 94720
CLMN   Number of Claims: 26
ECL    Exemplary Claim: 1
DRWN   17 Drawing Page(s)
LN.CNT 2132
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     Novel microgels, microparticles and related polymeric
       materials capable of delivering bioactive materials to cells for use as
       vaccines or therapeutic agents. The materials are made using a
       crosslinker molecule that contains a linkage cleavable under
       mild acidic conditions. The crosslinker molecule is
       exemplified by a bisacryloyl acetal crosslinker. The new
       materials have the common characteristic of being able to degrade by
       acid hydrolysis under conditions commonly found within the endosomal or
       lysosomal compartments of cells thereby releasing their payload within
       the cell. The materials can also be used for the delivery of
       therapeutics to the acidic regions of tumors and sites of inflammation.
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L9 ANSWER 2 OF 8 USPATFULL on STN
AN 2003:207837 USPATFULL
TI Coadministration of transport **protein** with conjugated cobalamin to deliver agents
IN Collins, Douglas A., Rochester, MN, UNITED STATES
PI US 2003144198 A1 20030731
AI US 2002-262318 A1 20020930 (10)
PRAI US 2001-326183P 20010928 (60)
DT Utility
FS APPLICATION
LREP Sherry M. Knowles, King & Spalding, 45th Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303
CLMN Number of Claims: 36
ECL Exemplary Claim: 1
DRWN 1 Drawing Page(s)
LN.CNT 3375
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Cobalamin transport proteins are administered in combination with cobalamin coupled to a diagnostic or pharmaceutically active agents to increase the extent of absorption of the diagnostic or pharmaceutically active agent. Cobalamin transport proteins include, but are not limited to intrinsic factor, transcobalamin I, transcobalamin II and transcobalamin III. The combination of the cobalamin or cobalamin derivative with the cobalamin transport **protein** provides enhanced cellular uptake.

L9 ANSWER 3 OF 8 USPATFULL on STN
AN 2003:181931 USPATFULL
TI Vascular sealing device and method of use
IN Ding, Ni, Plymouth, MN, UNITED STATES
PI US 2003125766 A1 20030703
AI US 2002-314552 A1 20021204 (10)
RLI Continuation of Ser. No. US 2000-498542, filed on 4 Feb 2000, GRANTED, Pat. No. US 6547806
DT Utility
FS APPLICATION
LREP SHUMAKER & SIEFFERT, P. A., 8425 SEASONS PARKWAY, SUITE 105, ST. PAUL, MN, 55125
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 812
AB A collapsible medical device for use, e.g., as a vascular sealer. The device includes a sheath adapted to be positioned such that a distal end thereof is adjacent the opening. A mandrel is disposed within a lumen of the sheath and is adapted to be positioned such that a distal length thereof is adjacent the distal end of the sheath. A collapsible sealing member comprises a fluid-impervious film carried by a plurality of wires. The wires are attached to the mandrel and expand radially outward therefrom. In one method of using such a device, the sealing member is held in a collapsed position within the sheath. The sealing member is advanced through the sheath and beyond the distal end thereof, whereby the sealing member resiliently expands. The sealing member is positioned against the inner wall of the blood vessel adjacent the opening, thereby effecting a temporary seal of the opening. The sealant is introduced into the tissue tract. After hardening, the sealing member is collapsed within the sheath. The sheath the sealing member collapsed therein (together with any existing introducer) are then withdrawn proximally from the patient.

L9 ANSWER 4 OF 8 USPATFULL on STN
AN 2003:158898 USPATFULL
TI Adhesion barriers applicable by minimally invasive surgery and methods of use thereof
IN Sawhney, Amarpreet S., Lexington, MA, UNITED STATES

PI US 2003108511 A1 20030612
AI US 2002-319308 A1 20021213 (10)
RLI Continuation-in-part of Ser. No. US 2001-10715, filed on 9 Nov 2001, PENDING Continuation-in-part of Ser. No. US 1999-454900, filed on 3 Dec 1999, PENDING Continuation-in-part of Ser. No. US 2000-513491, filed on 21 Apr 2000, PENDING Division of Ser. No. US 1998-134198, filed on 14 Aug 1998, GRANTED, Pat. No. US 6179862
PRAI US 1998-110849P 19981204 (60)
US 2002-359236P 20020220 (60)
DT Utility
FS APPLICATION
LREP PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A., 4800 IDS CENTER, 80 SOUTH 8TH STREET, MINNEAPOLIS, MN, 55402-2100
CLMN Number of Claims: 49
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 2941
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Biocompatible crosslinked polymers**, and methods for their preparation and use with minimally invasive surgery applicators are disclosed. The disclosure includes compositions and methods for in situ formation of **hydrogels** using minimally invasive surgical techniques.

L9 ANSWER 5 OF 8 USPATFULL on STN
AN 2003:17067 USPATFULL
TI Nitric oxide-producing **hydrogel** materials
IN West, Jennifer L, Pearland, TX, UNITED STATES
Masters, Kristyn Simcha, Northglenn, CO, UNITED STATES
PI US 2003012816 A1 20030116
AI US 2002-129418 A1 20020517 (10)
WO 2001-US27414 20010904
PRAI US 2000-9653406 20000901
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, SUITE 2800, ATLANTA, GA, 30309
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 20 Drawing Page(s)
LN.CNT 1500
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** releasing or producing NO, most preferably **polymerizable biodegradable hydrogels** capable of releasing physiological amounts of NO for prolonged periods of time, are applied to sites on or in a patient in need of treatment thereof for disorders such as restenosis, thrombosis, asthma, wound healing, arthritis, penile erectile dysfunction or other conditions where NO plays a significant role. The **polymeric** materials can be formed into films, coatings, or microparticles for application to medical devices, such as stents, vascular grafts and catheters. The **polymeric** materials can also be applied directly to biological tissues and can be **polymerized** in situ. The **hydrogels** are formed of macromers, which preferably include biodegradable regions, and have bound thereto groups that are released in situ to elevate or otherwise modulate NO levels at the site where treatment is needed. The macromers can form a homo or hetero-dispersion or solution, which is **polymerized** to form a **hydrogel** material, that in the latter case can be a semi-interpenetrating network or interpenetrating network. Compounds to be released can be physically entrapped, covalently or ionically bound to macromer, or actually form a part of the **polymeric** material. The **hydrogel** can be formed by ionic and/or covalent **crosslinking.** Other active agents, including therapeutic, prophylactic, or diagnostic agents, can also be included within the **polymeric** material.

L9 ANSWER 6 OF 8 USPATFULL on STN
AN 2003:16986 USPATFULL
TI **Biocompatible crosslinked polymers**
IN Pathak, Chandrashekhar P., Austin, TX, UNITED STATES
Sawhney, Amarpreet S., Lexington, MA, UNITED STATES
Edelman, Peter G., Franklin, MA, UNITED STATES
PA Incept LLC. (U.S. corporation)
PI US 2003012734 A1 20030116
AI US 2001-10715 A1 20011109 (10)
RLI Continuation-in-part of Ser. No. US 1999-147897, filed on 30 Aug 1999, PENDING A 371 of International Ser. No. WO 1997-US16897, filed on 22 Sep 1997, UNKNOWN Continuation-in-part of Ser. No. US 1999-454900, filed on 3 Dec 1999, PENDING
PRAI US 1996-26526P 19960923 (60)
US 1997-39904P 19970304 (60)
US 1997-40417P 19970313 (60)
US 1998-110849P 19981204 (60)
DT Utility
FS APPLICATION
LREP PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A., 4800 IDS CENTER, 80 SOUTH 8TH STREET, MINNEAPOLIS, MN, 55402-2100
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 2234
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Biocompatible crosslinked polymers**, and methods for their preparation and use, are disclosed in which the **biocompatible crosslinked polymers** are formed from **water** soluble precursors having electrophilic and nucleophilic functional groups capable of reacting and **crosslinking** in situ. Methods for making the resulting **biocompatible crosslinked polymers** biodegradable or not are provided, as are methods for controlling the rate of degradation. The **crosslinking** reactions may be carried out in situ on organs or tissues or outside the body. Applications for such **biocompatible crosslinked polymers** and their precursors include controlled delivery of drugs, prevention of post-operative adhesions, coating of medical devices such as vascular grafts, wound dressings and surgical sealants. Visualization agents may be included with the **crosslinked polymers.**

L9 ANSWER 7 OF 8 USPATFULL on STN
AN 2003:101990 USPATFULL
TI Vascular sealing device and method of use
IN Ding, Ni, 4365 Juneau La., Plymouth, MN, United States 55446
PI US 6547806 B1 20030415
AI US 2000-498542 20000204 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Jackson, Gary
LREP Shumaker & Sieffert, PA
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 8 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 802
AB A collapsible medical device for use, e.g., as a vascular sealer. The device includes a sheath adapted to be positioned such that a distal end thereof is adjacent the opening. A mandrel is disposed within a lumen of the sheath and is adapted to be positioned such that a distal length thereof is adjacent the distal end of the sheath. A collapsible sealing member comprises a fluid-impervious film carried by a plurality of wires. The wires are attached to the mandrel and expand radially outward therefrom. In one method of using such a device, the sealing member is

held in a collapsed position within the sheath. The sealing member is advanced through the sheath and beyond the distal end thereof, whereby the sealing member resiliently expands. The sealing member is positioned against the inner wall of the blood vessel adjacent the opening, thereby affecting a temporary seal of the opening. The sealant is introduced into the tissue tract. After hardening, the sealing member is collapsed within the sheath. The sheath the sealing member collapsed therein (together with any existing introducer) are then withdrawn proximally from the patient.

L9 ANSWER 8 OF 8 USPATFULL on STN
AN 2002:92631 USPATFULL
TI Cobalamin compounds useful as cardiovascular agents and as imaging agents
IN Hogenkamp, Henricus P.C., Roseville, MN, UNITED STATES
PI US 2002049155 A1 20020425
AI US 2001-873142 A1 20010531 (9)
PRAI US 2000-208140P 20000531 (60)
US 2001-267782P 20010209 (60)
DT Utility
FS APPLICATION
LREP KING & SPALDING, 191 PEACHTREE STREET, N.E., ATLANTA, GA, 30303-1763
CLMN Number of Claims: 50
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 4521
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides cobalamin derivatives linked to a cardiovascular agent, as well as pharmaceutical compositions comprising the compounds and methods for using the compounds in treatment or diagnosis of a cardiovascular disease.

=> s l7 and (polymer?(w)coat?)
L10 10 L7 AND (POLYMER?(W) COAT?)

=> s l9 and l10
L11 2 L9 AND L10

=> d l11 1-2 bib ab

L11 ANSWER 1 OF 2 USPATFULL on STN
AN 2003:17067 USPATFULL
TI Nitric oxide-producing **hydrogel** materials
IN West, Jennifer L, Pearland, TX, UNITED STATES
Masters, Kristyn Simcha, Northglenn, CO, UNITED STATES
PI US 2003012816 A1 20030116
AI US 2002-129418 A1 20020517 (10)
WO 2001-US27414 20010904
PRAI US 2000-9653406 20000901
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, SUITE 2800, ATLANTA, GA, 30309
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 20 Drawing Page(s)
LN.CNT 1500
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** releasing or producing NO, most preferably **polymerizable biodegradable hydrogels** capable of releasing physiological amounts of NO for prolonged periods of time, are applied to sites on or in a patient in need of treatment thereof for disorders such as restenosis, thrombosis, asthma, wound healing, arthritis, penile erectile dysfunction or other conditions where NO plays a significant role. The **polymeric** materials can be formed into films, coatings, or microparticles for application to

medical devices, such as stents, vascular grafts and catheters. The **polymeric** materials can also be applied directly to biological tissues and can be **polymerized** in situ. The **hydrogels** are formed of macromers, which preferably include biodegradable regions, and have bound thereto groups that are released in situ to elevate or otherwise modulate NO levels at the site where treatment is needed. The macromers can form a homo or hetero-dispersion or solution, which is **polymerized** to form a **hydrogel** material, that in the latter case can be a semi-interpenetrating network or interpenetrating network. Compounds to be released can be physically entrapped, covalently or ionically bound to macromer, or actually form a part of the **polymeric** material. The **hydrogel** can be formed by ionic and/or covalent **crosslinking.** Other active agents, including therapeutic, prophylactic, or diagnostic agents, can also be included within the **polymeric** material.

L11 ANSWER 2 OF 2 USPATFULL on STN
AN 2003:16986 USPATFULL
TI **Biocompatible crosslinked polymers**
IN Pathak, Chandrashekhar P., Austin, TX, UNITED STATES
Sawhney, Amarpreet S., Lexington, MA, UNITED STATES
Edelman, Peter G., Franklin, MA, UNITED STATES
PA Incept LLC. (U.S. corporation)
PI US 2003012734 A1 20030116
AI US 2001-10715 A1 20011109 (10)
RLI Continuation-in-part of Ser. No. US 1999-147897, filed on 30 Aug 1999, PENDING A 371 of International Ser. No. WO 1997-US16897, filed on 22 Sep 1997, UNKNOWN Continuation-in-part of Ser. No. US 1999-454900, filed on 3 Dec 1999, PENDING
PRAI US 1996-26526P 19960923 (60)
US 1997-39904P 19970304 (60)
US 1997-40417P 19970313 (60)
US 1998-110849P 19981204 (60)
DT Utility
FS APPLICATION
LREP PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A., 4800 IDS CENTER, 80 SOUTH 8TH STREET, MINNEAPOLIS, MN, 55402-2100
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 2234
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Biocompatible crosslinked polymers**, and methods for their preparation and use, are disclosed in which the **biocompatible crosslinked polymers** are formed from **water** soluble precursors having electrophilic and nucleophilic functional groups capable of reacting and **crosslinking** in situ. Methods for making the resulting **biocompatible crosslinked polymers** biodegradable or not are provided, as are methods for controlling the rate of degradation. The **crosslinking** reactions may be carried out in situ on organs or tissues or outside the body. Applications for such **biocompatible crosslinked polymers** and their precursors include controlled delivery of drugs, prevention of post-operative adhesions, coating of medical devices such as vascular grafts, wound dressings and surgical sealants. Visualization agents may be included with the **crosslinked polymers.**

=> d his

(FILE 'HOME' ENTERED AT 16:00:46 ON 05 MAY 2004)

FILE 'STNGUIDE' ENTERED AT 16:01:01 ON 05 MAY 2004

FILE 'HOME' ENTERED AT 16:01:07 ON 05 MAY 2004

FILE 'MEDLINE, CAPLUS, BIOSIS, BIOTECHDS, EMBASE, USPATFULL, WPIDS'
ENTERED AT 16:01:25 ON 05 MAY 2004

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L1        149289 S (POLYMER?(5L)HYDROPHIL?)
L2         71109 S PROTEIN AND (L1 OR HYDROGEL? OR WATER) AND (BIOCOMPATI? OR CO
L3           710 S L2 AND (VISUALIZ? AGENT OR PHOTOPOLYMER?)
L4            55 S L3 AND (BIODEGRAD? HYDROGEL?)
L5            55 S L4 AND (CROSSLINK? OR CROSS-LINK? OR CROSS LINK?(W)POLYETHYE
L6            25 S L5 AND (ELECTROPHIL? OR NUCLEOPHIL?)
L7            36 S L5 AND (DYE OR BLUE COLOR OR GREEN COLOR OR METHYLENE BLUE O
L8             8 S L7 AND (KIT OR PACKAGED DEVICE)
L9             8 DUP REM L8 (0 DUPLICATES REMOVED)
L10           10 S L7 AND (POLYMER?(W)COAT?)
L11            2 S L9 AND L10

=> d l10 1-10 bib ab

L10  ANSWER 1 OF 10  USPATFULL on STN
AN     2003:127770  USPATFULL
TI     Gels for encapsulation of biological materials
IN     Hubbell, Jeffrey A., San Marino, CA, UNITED STATES
       Pathak, Chandrashekhar P., Lexington, MA, UNITED STATES
       Sawhney, Amarpreet S., Lexington, MA, UNITED STATES
       Desai, Neil P., Los Angeles, CA, UNITED STATES
       Hossainy, Syed F.A., San Carlos, CA, UNITED STATES
       Hill-West, Jennifer L., Pasadena, CA, UNITED STATES
PI     US 2003087985      A1   20030508
AI     US 2001-910663     A1   20010719 (9)
RLI    Continuation of Ser. No. US 1995-510089, filed on 1 Aug 1995, ABANDONED
       Continuation-in-part of Ser. No. US 1992-958870, filed on 7 Oct 1992,
       GRANTED, Pat. No. US 5529914 Continuation-in-part of Ser. No. US
       1992-870540, filed on 20 Apr 1992, ABANDONED Continuation-in-part of
       Ser. No. US 1995-379848, filed on 27 Jan 1995, GRANTED, Pat. No. US
       5626863 Continuation of Ser. No. US 1993-22687, filed on 1 Mar 1993,
       GRANTED, Pat. No. US 5410016 Continuation-in-part of Ser. No. US
       1992-843485, filed on 28 Feb 1992, ABANDONED Continuation-in-part of
       Ser. No. US 1994-336393, filed on 10 Nov 1994, GRANTED, Pat. No. US
       5820882 Continuation of Ser. No. US 1990-598880, filed on 15 Oct 1990,
       ABANDONED
DT     Utility
FS     APPLICATION
LREP   LYON & LYON LLP, 633 WEST FIFTH STREET, SUITE 4700, LOS ANGELES, CA,
       90071
CLMN   Number of Claims: 36
ECL    Exemplary Claim: 1
DRWN   22 Drawing Page(s)
LN.CNT 3246
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
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AB This invention provides novel methods for the formation of **biocompatible** membranes around biological materials using **photopolymerization** of **water** soluble molecules. The membranes can be used as a covering to encapsulate biological materials or biomedical devices, as a "glue" to cause more than one biological substance to adhere together, or as carriers for biologically active species.

Several methods for forming these membranes are provided. Each of these methods utilizes a **polymerization** system containing **water**-soluble macromers, species which are at once **polymers** and macromolecules capable of further **polymerization.** The macromers are **polymerized** using a photoinitiator (such as a **dye**), optionally a cocatalyst, optionally an accelerator, and radiation in the form of visible or long wavelength UV light. The reaction occurs either by suspension

polymerization or by interfacial **polymerization.** The **polymer** membrane can be formed directly on the surface of the biological material, or it can be formed on material which is already encapsulated.

L10 ANSWER 2 OF 10 USPATFULL on STN
AN 2003:17067 USPATFULL
TI Nitric oxide-producing **hydrogel** materials
IN West, Jennifer L, Pearland, TX, UNITED STATES
Masters, Kristyn Simcha, Northglenn, CO, UNITED STATES
PI US 2003012816 A1 20030116
AI US 2002-129418 A1 20020517 (10)
WO 2001-US27414 20010904
PRAI US 2000-9653406 20000901
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, SUITE 2800, ATLANTA, GA, 30309
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 20 Drawing Page(s)
LN.CNT 1500
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** releasing or producing NO, most preferably **polymerizable biodegradable hydrogels** capable of releasing physiological amounts of NO for prolonged periods of time, are applied to sites on or in a patient in need of treatment thereof for disorders such as restenosis, thrombosis, asthma, wound healing, arthritis, penile erectile dysfunction or other conditions where NO plays a significant role. The **polymeric** materials can be formed into films, coatings, or microparticles for application to medical devices, such as stents, vascular grafts and catheters. The **polymeric** materials can also be applied directly to biological tissues and can be **polymerized** in situ. The **hydrogels** are formed of macromers, which preferably include biodegradable regions, and have bound thereto groups that are released in situ to elevate or otherwise modulate NO levels at the site where treatment is needed. The macromers can form a homo or hetero-dispersion or solution, which is **polymerized** to form a **hydrogel** material, that in the latter case can be a semi-interpenetrating network or interpenetrating network. Compounds to be released can be physically entrapped, covalently or ionically bound to macromer, or actually form a part of the **polymeric** material. The **hydrogel** can be formed by ionic and/or covalent **crosslinking.** Other active agents, including therapeutic, prophylactic, or diagnostic agents, can also be included within the **polymeric** material.

L10 ANSWER 3 OF 10 USPATFULL on STN
AN 2003:16986 USPATFULL
TI **Biocompatible crosslinked polymers**
IN Pathak, Chandrashekhar P., Austin, TX, UNITED STATES
Sawhney, Amarpreet S., Lexington, MA, UNITED STATES
Edelman, Peter G., Franklin, MA, UNITED STATES
PA Incept LLC. (U.S. corporation)
PI US 2003012734 A1 20030116
AI US 2001-10715 A1 20011109 (10)
RLI Continuation-in-part of Ser. No. US 1999-147897, filed on 30 Aug 1999, PENDING A 371 of International Ser. No. WO 1997-US16897, filed on 22 Sep 1997, UNKNOWN Continuation-in-part of Ser. No. US 1999-454900, filed on 3 Dec 1999, PENDING
PRAI US 1996-26526P 19960923 (60)
US 1997-39904P 19970304 (60)
US 1997-40417P 19970313 (60)
US 1998-110849P 19981204 (60)
DT Utility

FS APPLICATION
LREP PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A., 4800 IDS CENTER, 80 SOUTH 8TH STREET, MINNEAPOLIS, MN, 55402-2100
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 2234
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Biocompatible crosslinked polymers**, and methods for their preparation and use, are disclosed in which the **biocompatible crosslinked polymers** are formed from **water** soluble precursors having electrophilic and nucleophilic functional groups capable of reacting and **crosslinking** in situ. Methods for making the resulting **biocompatible crosslinked polymers** biodegradable or not are provided, as are methods for controlling the rate of degradation. The **crosslinking** reactions may be carried out in situ on organs or tissues or outside the body. Applications for such **biocompatible crosslinked polymers** and their precursors include controlled delivery of drugs, prevention of post-operative adhesions, coating of medical devices such as vascular grafts, wound dressings and surgical sealants. Visualization agents may be included with the **crosslinked polymers.**

L10 ANSWER 4 OF 10 USPATFULL on STN
AN 2002:172469 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Zumikon, SWITZERLAND
Pathak, Chandrashekhar P., Austin, TX, UNITED STATES
Sawhney, Amarpreet S., Lexington, MA, UNITED STATES
Desai, Neil P., Los Angeles, CA, UNITED STATES
Hill, Jennifer L., Pearland, TX, UNITED STATES
PA Board of Regents, The University of Texas System Texas (non-U.S. corporation)
PI US 2002091229 A1 20020711
US 6602975 B2 20030805
AI US 2001-21508 A1 20011022 (10)
RLI Continuation of Ser. No. US 2000-492011, filed on 26 Jan 2000, PATENTED
Continuation of Ser. No. US 1998-128917, filed on 4 Aug 1998, PATENTED
Continuation of Ser. No. US 1996-700237, filed on 20 Aug 1996, PATENTED
Division of Ser. No. US 1995-468364, filed on 6 Jun 1995, PATENTED
Division of Ser. No. US 1995-379848, filed on 27 Jan 1995, PATENTED
Division of Ser. No. US 1993-22687, filed on 1 Mar 1993, PATENTED
Continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, ABANDONED
DT Utility
FS APPLICATION
LREP PATREA L. PABST, HOLLAND & KNIGHT LLP, SUITE 2000, ONE ATLANTIC CENTER, 1201 WEST PEACHTREE STREET, N.E., ATLANTA, GA, 30309-3400
CLMN Number of Claims: 31
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 1817
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages

within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L10 ANSWER 5 OF 10 USPATFULL on STN
AN 2001:185356 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill, Jennifer L., Austin, TX, United States
PA Boards of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 6306922 B1 20011023
AI US 2000-492011 20000126 (9)
RLI Continuation of Ser. No. US 1998-128917, filed on 4 Aug 1998, now patented, Pat. No. US 6060582 Continuation of Ser. No. US 1996-700237, filed on 20 Aug 1996, now patented, Pat. No. US 5986043 Division of Ser. No. US 1995-468364, filed on 6 Jun 1995, now patented, Pat. No. US 5567435 Division of Ser. No. US 1995-379848, filed on 27 Jan 1995, now patented, Pat. No. US 5626863 Division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 Continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Hampton-Hightower, P.
LREP Holland & Knight LLP
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 2166
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L10 ANSWER 6 OF 10 USPATFULL on STN
AN 2000:57876 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill-West, Jennifer L., Austin, TX, United States

PA The Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 6060582 20000509
AI US 1998-128917 19980804 (9)
RLI Continuation of Ser. No. US 1996-700237, filed on 20 Aug 1996 which is a division of Ser. No. US 1995-468364, filed on 6 Jun 1995, now patented, Pat. No. US 5567435 which is a division of Ser. No. US 1995-379848, filed on 27 Jan 1995, now patented, Pat. No. US 5626863 which is a division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 which is a continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Hampton-Hightower, P.
LREP Arnall Golden & Gregory, LLP
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 2334
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L10 ANSWER 7 OF 10 USPATFULL on STN
AN 1999:146742 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill-West, Jennifer L., Austin, TX, United States
PA Board of Regents, The University of Texas System, United States (U.S. corporation)
PI US 5986043 19991116
AI US 1996-700237 19960820 (8)
RLI Division of Ser. No. US 1995-468364, filed on 6 Jun 1995, now patented, Pat. No. US 5567435 which is a division of Ser. No. US 1995-379848, filed on 27 Jan 1995, now patented, Pat. No. US 5626863 which is a division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 which is a continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Hampton-Hightower, P.
LREP Arnall Golden & Gregory, LLP
CLMN Number of Claims: 42
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 1925

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L10 ANSWER 8 OF 10 USPATFULL on STN

AN 97:38209 USPATFULL

TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers

IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill, Jennifer L., Austin, TX, United States

PA Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)

PI US 5626863 19970506

AI US 1995-379848 19950127 (8)

RLI Division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 which is a continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Dodson, Shelley A.

LREP Pabst, Patrea L.

CLMN Number of Claims: 43

ECL Exemplary Claim: 1

DRWN 13 Drawing Figure(s); 9 Drawing Page(s)

LN.CNT 2322

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L10 ANSWER 9 OF 10 USPATFULL on STN

AN 96:96779 USPATFULL

TI **Photopolymerizable biodegradable hydrogels**

as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill-West, Jennifer L., Austin, TX, United States
PA Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 5567435 19961022
AI US 1995-468364 19950606 (8)
RLI Division of Ser. No. US 1995-379848, filed on 27 Jan 1995 which is a division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 which is a continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Arnall Golden & Gregory
CLMN Number of Claims: 38
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 2186
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L10 ANSWER 10 OF 10 USPATFULL on STN
AN 95:36490 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill, Jennifer L., Austin, TX, United States
PA Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 5410016 19950425
AI US 1993-22687 19930301 (8)
RLI Continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned Ser. No. Ser. No. US 1990-598880, filed on 15 Oct 1990 And Ser. No. US 1991-740703, filed on 5 Aug 1991 which is a division of Ser. No. US -598880
DT Utility
FS Granted
EXNAM Primary Examiner: Foelak, Morton; Assistant Examiner: Dodson, Shelley A.
LREP Kilpatrick & Cody
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 9 Drawing Page(s)

LN.CNT 2205
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

=> s Pathak, C?/au
L12 444 PATHAK, C?/AU

=> s Sawhney, A?/au
L13 398 SAWHNEY, A?/AU

=> s Edelman, P?/au
L14 336 EDELMAN, P?/AU

=> s l7 and (l12 or l13 or l14)
L15 22 L7 AND (L12 OR L13 OR L14)

=> s l10 and (l12 or l13 or l14)
L16 9 L10 AND (L12 OR L13 OR L14)

=> s l15 and l16
L17 9 L15 AND L16

=> d l17 1-9 bib ab

L17 ANSWER 1 OF 9 USPATFULL on STN
AN 2003:127770 USPATFULL
TI Gels for encapsulation of biological materials
IN Hubbell, Jeffrey A., San Marino, CA, UNITED STATES
Pathak, Chandrashekhar P., Lexington, MA, UNITED STATES
Sawhney, Amarpreet S., Lexington, MA, UNITED STATES
Desai, Neil P., Los Angeles, CA, UNITED STATES
Hossainy, Syed F.A., San Carlos, CA, UNITED STATES
Hill-West, Jennifer L., Pasadena, CA, UNITED STATES
PI US 2003087985 A1 20030508
AI US 2001-910663 A1 20010719 (9)
RLI Continuation of Ser. No. US 1995-510089, filed on 1 Aug 1995, ABANDONED Continuation-in-part of Ser. No. US 1992-958870, filed on 7 Oct 1992, GRANTED, Pat. No. US 5529914 Continuation-in-part of Ser. No. US 1992-870540, filed on 20 Apr 1992, ABANDONED Continuation-in-part of Ser. No. US 1995-379848, filed on 27 Jan 1995, GRANTED, Pat. No. US 5626863 Continuation of Ser. No. US 1993-22687, filed on 1 Mar 1993, GRANTED, Pat. No. US 5410016 Continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, ABANDONED Continuation-in-part of Ser. No. US 1994-336393, filed on 10 Nov 1994, GRANTED, Pat. No. US 5820882 Continuation of Ser. No. US 1990-598880, filed on 15 Oct 1990, ABANDONED
DT Utility
FS APPLICATION
LREP LYON & LYON LLP, 633 WEST FIFTH STREET, SUITE 4700, LOS ANGELES, CA, 90071

CLMN Number of Claims: 36
ECL Exemplary Claim: 1
DRWN 22 Drawing Page(s)
LN.CNT 3246
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides novel methods for the formation of **biocompatible** membranes around biological materials using **photopolymerization** of **water** soluble molecules. The membranes can be used as a covering to encapsulate biological materials or biomedical devices, as a "glue" to cause more than one biological substance to adhere together, or as carriers for biologically active species.

Several methods for forming these membranes are provided. Each of these methods utilizes a **polymerization** system containing **water**-soluble macromers, species which are at once **polymers** and macromolecules capable of further **polymerization.** The macromers are **polymerized** using a photoinitiator (such as a **dye**), optionally a cocatalyst, optionally an accelerator, and radiation in the form of visible or long wavelength UV light. The reaction occurs either by suspension **polymerization** or by interfacial **polymerization.** The **polymer** membrane can be formed directly on the surface of the biological material, or it can be formed on material which is already encapsulated.

L17 ANSWER 2 OF 9 USPATFULL on STN
AN 2003:16986 USPATFULL
TI **Biocompatible crosslinked polymers**
IN **Pathak, Chandrashekhar P.**, Austin, TX, UNITED STATES
Sawhney, Amarpreet S., Lexington, MA, UNITED STATES
Edelman, Peter G., Franklin, MA, UNITED STATES
PA Incept LLC. (U.S. corporation)
PI US 2003012734 A1 20030116
AI US 2001-10715 A1 20011109 (10)
RLI Continuation-in-part of Ser. No. US 1999-147897, filed on 30 Aug 1999, PENDING A 371 of International Ser. No. WO 1997-US16897, filed on 22 Sep 1997, UNKNOWN Continuation-in-part of Ser. No. US 1999-454900, filed on 3 Dec 1999, PENDING
PRAI US 1996-26526P 19960923 (60)
US 1997-39904P 19970304 (60)
US 1997-40417P 19970313 (60)
US 1998-110849P 19981204 (60)
DT Utility
FS APPLICATION
LREP PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A., 4800 IDS CENTER, 80 SOUTH 8TH STREET, MINNEAPOLIS, MN, 55402-2100
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 2234
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Biocompatible crosslinked polymers**, and methods for their preparation and use, are disclosed in which the **biocompatible crosslinked polymers** are formed from **water** soluble precursors having electrophilic and nucleophilic functional groups capable of reacting and **crosslinking** in situ. Methods for making the resulting **biocompatible crosslinked polymers** biodegradable or not are provided, as are methods for controlling the rate of degradation. The **crosslinking** reactions may be carried out in situ on organs or tissues or outside the body. Applications for such **biocompatible crosslinked polymers** and their precursors include controlled delivery of drugs, prevention of post-operative adhesions, coating of medical devices such as vascular

grafts, wound dressings and surgical sealants. Visualization agents may be included with the **crosslinked polymers.**

L17 ANSWER 3 OF 9 USPATFULL on STN
AN 2002:172469 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Zumikon, SWITZERLAND
Pathak, Chandrashekhar P., Austin, TX, UNITED STATES
Sawhney, Amarpreet S., Lexington, MA, UNITED STATES
Desai, Neil P., Los Angeles, CA, UNITED STATES
Hill, Jennifer L., Pearland, TX, UNITED STATES
PA Board of Regents, The University of Texas System Texas (non-U.S. corporation)
PI US 2002091229 A1 20020711
US 6602975 B2 20030805
AI US 2001-21508 A1 20011022 (10)
RLI Continuation of Ser. No. US 2000-492011, filed on 26 Jan 2000, PATENTED
Continuation of Ser. No. US 1998-128917, filed on 4 Aug 1998, PATENTED
Continuation of Ser. No. US 1996-700237, filed on 20 Aug 1996, PATENTED
Division of Ser. No. US 1995-468364, filed on 6 Jun 1995, PATENTED
Division of Ser. No. US 1995-379848, filed on 27 Jan 1995, PATENTED
Division of Ser. No. US 1993-22687, filed on 1 Mar 1993, PATENTED
Continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, ABANDONED
DT Utility
FS APPLICATION
LREP PATREA L. PABST, HOLLAND & KNIGHT LLP, SUITE 2000, ONE ATLANTIC CENTER, 1201 WEST PEACHTREE STREET, N.E., ATLANTA, GA, 30309-3400
CLMN Number of Claims: 31
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 1817
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L17 ANSWER 4 OF 9 USPATFULL on STN
AN 2001:185356 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill, Jennifer L., Austin, TX, United States
PA Boards of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 6306922 B1 20011023
AI US 2000-492011 20000126 (9)

RLI Continuation of Ser. No. US 1998-128917, filed on 4 Aug 1998, now patented, Pat. No. US 6060582 Continuation of Ser. No. US 1996-700237, filed on 20 Aug 1996, now patented, Pat. No. US 5986043 Division of Ser. No. US 1995-468364, filed on 6 Jun 1995, now patented, Pat. No. US 5567435 Division of Ser. No. US 1995-379848, filed on 27 Jan 1995, now patented, Pat. No. US 5626863 Division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 Continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Hampton-Hightower, P.
LREP Holland & Knight LLP
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 2166
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L17 ANSWER 5 OF 9 USPATFULL on STN
AN 2000:57876 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill-West, Jennifer L., Austin, TX, United States
PA The Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 6060582 20000509
AI US 1998-128917 19980804 (9)
RLI Continuation of Ser. No. US 1996-700237, filed on 20 Aug 1996 which is a division of Ser. No. US 1995-468364, filed on 6 Jun 1995, now patented, Pat. No. US 5567435 which is a division of Ser. No. US 1995-379848, filed on 27 Jan 1995, now patented, Pat. No. US 5626863 which is a division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 which is a continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Hampton-Hightower, P.
LREP Arnall Golden & Gregory, LLP
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 7 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 2334
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked**

macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L17 ANSWER 6 OF 9 USPATFULL on STN
AN 1999:146742 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill-West, Jennifer L., Austin, TX, United States
PA Board of Regents, The University of Texas System, United States (U.S. corporation)
PI US 5986043 19991116
AI US 1996-700237 19960820 (8)
RLI Division of Ser. No. US 1995-468364, filed on 6 Jun 1995, now patented, Pat. No. US 5567435 which is a division of Ser. No. US 1995-379848, filed on 27 Jan 1995, now patented, Pat. No. US 5626863 which is a division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 which is a continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Hampton-Hightower, P.
LREP Arnall Golden & Gregory, LLP
CLMN Number of Claims: 42
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 1925
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L17 ANSWER 7 OF 9 USPATFULL on STN
AN 97:38209 USPATFULL

TI **Photopolymerizable biodegradable hydrogels**
as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill, Jennifer L., Austin, TX, United States
PA Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 5626863 19970506
AI US 1995-379848 19950127 (8)
RLI Division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 which is a continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Pabst, Patrea L.
CLMN Number of Claims: 43
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 2322
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L17 ANSWER 8 OF 9 USPATFULL on STN
AN 96:96779 USPATFULL
TI **Photopolymerizable biodegradable hydrogels**
as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill-West, Jennifer L., Austin, TX, United States
PA Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 5567435 19961022
AI US 1995-468364 19950606 (8)
RLI Division of Ser. No. US 1995-379848, filed on 27 Jan 1995 which is a division of Ser. No. US 1993-22687, filed on 1 Mar 1993, now patented, Pat. No. US 5410016 which is a continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Arnall Golden & Gregory
CLMN Number of Claims: 38
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 9 Drawing Page(s)

LN.CNT 2186
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

L17 ANSWER 9 OF 9 USPATFULL on STN
AN 95:36490 USPATFULL
TI **Photopolymerizable biodegradable hydrogels** as tissue contacting materials and controlled-release carriers
IN Hubbell, Jeffrey A., Austin, TX, United States
Pathak, Chandrashekhar P., Waltham, MA, United States
Sawhney, Amarpreet S., Newton, MA, United States
Desai, Neil P., Los Angeles, CA, United States
Hill, Jennifer L., Austin, TX, United States
PA Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)
PI US 5410016 19950425
AI US 1993-22687 19930301 (8)
RLI Continuation-in-part of Ser. No. US 1992-843485, filed on 28 Feb 1992, now abandoned Ser. No. Ser. No. US 1990-598880, filed on 15 Oct 1990 And Ser. No. US 1991-740703, filed on 5 Aug 1991 which is a division of Ser. No. US -598880
DT Utility
FS Granted
EXNAM Primary Examiner: Foelak, Morton; Assistant Examiner: Dodson, Shelley A.
LREP Kilpatrick & Cody
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN 13 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 2205
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Hydrogels** of **polymerized** and **crosslinked** macromers comprising **hydrophilic** oligomers having biodegradable monomeric or oligomeric extensions, which biodegradable extensions are terminated on free ends with end cap monomers or oligomers capable of **polymerization** and **cross linking** are described. The **hydrophilic** core itself may be degradable, thus combining the core and extension functions. Macromers are **polymerized** using free radical initiators under the influence of long wavelength ultraviolet light, visible light excitation or thermal energy. Biodegradation occurs at the linkages within the extension oligomers and results in fragments which are non-toxic and easily removed from the body. Preferred applications for the **hydrogels** include prevention of adhesion formation after surgical procedures, controlled release of drugs and other bioactive species, temporary protection or separation of tissue surfaces, adhering of sealing tissues together, and preventing the attachment of cells to tissue surfaces.

=> s l17 and (kit or packaged device)
L18 1 L17 AND (KIT OR PACKAGED DEVICE)

=> d l18 bib ab

L18 ANSWER 1 OF 1 USPATFULL on STN
AN 2003:16986 USPATFULL
TI **Biocompatible crosslinked polymers**
IN **Pathak, Chandrashekhar P.**, Austin, TX, UNITED STATES
Sawhney, Amarpreet S., Lexington, MA, UNITED STATES
Edelman, Peter G., Franklin, MA, UNITED STATES
PA Incept LLC. (U.S. corporation)
PI US 2003012734 A1 20030116
AI US 2001-10715 A1 20011109 (10)
RLI Continuation-in-part of Ser. No. US 1999-147897, filed on 30 Aug 1999, PENDING A 371 of International Ser. No. WO 1997-US16897, filed on 22 Sep 1997, UNKNOWN Continuation-in-part of Ser. No. US 1999-454900, filed on 3 Dec 1999, PENDING
PRAI US 1996-26526P 19960923 (60)
US 1997-39904P 19970304 (60)
US 1997-40417P 19970313 (60)
US 1998-110849P 19981204 (60)
DT Utility
FS APPLICATION
LREP PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A., 4800 IDS CENTER, 80 SOUTH 8TH STREET, MINNEAPOLIS, MN, 55402-2100
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 2234
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Biocompatible crosslinked polymers**, and methods for their preparation and use, are disclosed in which the **biocompatible crosslinked polymers** are formed from **water** soluble precursors having electrophilic and nucleophilic functional groups capable of reacting and **crosslinking** in situ. Methods for making the resulting **biocompatible crosslinked polymers** biodegradable or not are provided, as are methods for controlling the rate of degradation. The **crosslinking** reactions may be carried out in situ on organs or tissues or outside the body. Applications for such **biocompatible crosslinked polymers** and their precursors include controlled delivery of drugs, prevention of post-operative adhesions, coating of medical devices such as vascular grafts, wound dressings and surgical sealants. Visualization agents may be included with the **crosslinked polymers.**

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